

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/6/08 has been entered.

### ***Response to Arguments***

On pages 7-9, applicant argues that Malec fails to disclose transmitting visual product specific promotions. While the applicant's points are understood, the examiner respectfully disagrees. See for example Malec, column 8, lines 28-33. There Malec discloses that all data needed for the SCD system is transmitted by the ISC. Malec illustrates in figures 9A-9B, that the SCD system includes coupons. Hence, Malec is transmitting visual product specific promotions from the ISC to the SCD on the cart. Therefore the rejection has been maintained.

On page 9, applicant argues that Malec in view of Volgelman fail to disclose a computer for operating the interaction between the plurality of display units, transceiver units, and transmitter. While the applicant's points are understood, the examiner respectfully disagrees. See for example Malec column 7, line 44 - column 8, line 40. There Malec discloses that the in-store computer transmits messages via the transceivers and transmitters to the SCD electronics of the shopping cart. Thus, the in-

store computer operates the interaction between the plurality of display units, transceiver units, and the transmitter. Therefore the rejection has been maintained.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-16 and 18-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Malec et al. (5295064) in view of Vogelman et al. (5264822), (hereinafter referred to as "Vogelman") in further view of Ruppert et al. (5640002), (hereinafter referred to as "Ruppert").

Claim 1: Malec discloses an electronic shopping cart display system comprising: a plurality of display units having a display screen attached to a plurality of shopping carts for displaying information; (See Malec figure 9A) a transmitter for sending information to the plurality of transceiver units; (See Malec figure 5 item 602) an audible alert component on the display unit for signaling receipt of information from the transceiver unit; (See Malec figure 10 items 1308 and 1309) and a computer for operating the interaction between the plurality of display units, the plurality of transceiver units, and the transmitter (See Malec figure 4 item 502), one or more transceiver units for sending information, wherein the information includes a visual message containing product specific promotions

to the plurality of display units and being located proximate to promoted items, (See Malec figure 4 items 503, 500, 513 and 514. While items 513 and 514 are transmitters item 503 transmits information to the carts 500 when the carts enter a particular area thus achieving the same result as if the data was sent to a transceiver then relayed to a cart when the cart entered a particular area). However, this apparatus lacks the transceivers, RFID units, and product-specific promotions as claimed. One issue with Malec's invention is that it requires the on board display electronics to search for messages associated with a particular transmitter, thus requiring expensive on board memory for every cart (Malec: column 8 lines 52--65). Vogelmann teaches that prior art advertising systems are very complex and time and labor intensive (Vogelmann: column 1, lines 55-62). To help alleviate this problem, Vogelmann discloses transceiver units for sending product-specific promotions (Vogelmann: column 5, lines 63-67; column 11, lines 35-40) and a transmitter and computer in direct communication with the transceiver and in indirect communication with the transceiver (Vogelmann: figure 10, column 11, lines 8-39, wherein the computer is the digital memory storage and accessing means which contains the transmitter; the transmitter is in direct communication with the transceiver 61 via the multi-wire system cables; the computer is in indirect communication with the transceiver via the transmitter). Ruppert teaches that shopping is difficult and inconvenient when making comprehensive lists and when price comparing large numbers of items (Ruppert: column 1, lines 25-45). To help alleviate this problem, Ruppert

discloses an apparatus comprising RFID units (Ruppert: figure 27, item 502). Therefore it would have been obvious to one of ordinary skill in the art to replace the transmitters with transceivers and have the transmitted information be product specific promotions to make the invention as claimed. One would have been motivated to do so by a desire to eliminate the complex configuration and help reduce the time and labor intensities of the shopping process.

Claim 2: Malec discloses an electronic shopping cart display subsystem according to claim 1, wherein the display unit includes buttons for enabling a user to select information requests and directions. (See Malec figure 9B).

Claim 3: Malec discloses an electronic shopping cart display system according to claim 1, wherein the display unit automatically receives a signal for providing information. See Malec column 8 lines 52-65).

Claim 4: Malec discloses an electronic shopping cart display system according to claim 1, wherein the transceiver unit provides independent processing of data and independent communication with the display unit. (See Malec figure 4 item 503 as well as figure IO-item 504, note that the display is capable of independent communication with a transceiver. If the transmitter 514 were to be replaced by with a transceiver, a reasonable expectation of success would be achieved).

Claim 5: Malec discloses an electronic shopping cad display system according to claim 1, wherein the transceiver unit includes at least one of an RFID tag and a proximity sensor that detects the presence of a shopping cart

within a programmed range and initiates transmission of the trigger and data signals to the display unit. (See Malec figure 10 items 1313 and 1314).

Claim 6. Malec discloses an electronic shopping cart display system according to claim 1, wherein the transceiver unit includes a radio frequency receiver to receive radio frequency transmissions from the computer. (See Malec figure 5 item 602).

Claim 7: Malec discloses an electronic shopping cart display system according to claim 1, wherein the display unit includes a radio frequency receiver to receive radio frequency transmissions from a transceiver unit. (See Malec figure 10 item 1317).

Claim 8: Malec discloses an electronic shopping cart display system according to claim 1, wherein the display unit includes an infrared receiver to receive infrared transmissions from a transceiver unit. (See Malec column 10 lines 9-14).

Claim 9. Malec discloses an electronic shopping cart display system according to claim 1, wherein the display unit includes a microwave receiver to receive microwave transmissions from a transceiver unit. (See Malec column 23 lines 45-49).

Claim 10: Malec discloses an electronic shopping cart display system according to claim 1, wherein the display unit includes an ultrasonic receiver to receive ultrasonic transmissions from a transceiver unit. (At the time the invention was made it was well known in the art that ultrasonic transmission was

interchangeable with IR or microwave transmission. Furthermore in column 10 line 12-13 Malec clearly teaches that any FCC Part 90 authorized transmission could be used. Therefore it would have been obvious to one of ordinary skill in the art to communicate via ultrasound motivated by the knowledge as taught by Malec that it could be used in place of IR of any other form).

Claim 11: Malec discloses an electronic shopping cart display system according to claim 1, wherein the display unit includes a sensor utilizing an ultrasonic signal for determining distance between the display unit and the transceiver unit. (At the time the invention was made it was well known in the art to utilize ultrasonic signals to determine the distance between two objects. Therefore it would have been obvious to one of ordinary skill in the art to use an ultrasonic signal to determine the distance motivated by a need to keep track of the whereabouts of the shopping cart.) Official notice served.

Claim 12: Malec discloses an electronic shopping cart display system according to claim 4, wherein the transceiver unit has a separate identification such that data transmitted from the computer is transmitted throughout a store but is processed and stored only by a transceiver unit to which the data is intended. (See Malec column 15 lines 19-34)

Claim 13. Malec discloses an electronic shopping cart display system according to claim 1, further comprising a battery charger unit for powering the display unit (See Malec figure 4 item 505).

Claim 14. Malec discloses an electronic shopping cart display system according to claim 1, wherein the computer, the plurality of display units, and the transmitter are linked through radio frequency transmissions. (See Malec Column 18 line 57)

Claims 15, 21: Malec discloses an electronic shopping cart display system according to claim 1, wherein the computer, the plurality of display units, the plurality of transceiver units, and the transmitter are linked through at least one of RFID transmissions and infrared transmissions. (See Malec column 10 lines 9-14).

Claim 16: Malec discloses an electronic shopping cart display system according to claim 1, further comprising Internet access for connecting a shopper directly to Internet content. (At the time the invention was made, connecting to the Internet was widely known and in use. While Malec system predates the Internet as it was used at the time the invention was made, it would have been obvious to one of ordinary skill in the art to connect the displays to the Internet. One would have been motivated to do so in an effort to either provide timely product information or allow the customer to research a product before buying it.)  
Official notice served.

Claim 18. Malec discloses an electronic shopping cart display system according to claim 1, further comprising a means for locating a shopping cart's position at least one of outside a store and within a store. (See Malec column 11 lines 23-44)

Claim 19: Malec discloses an electronic shopping cart display system according to claim 1, further comprising a data card reader. (See Malec lines 62-65 a smart card reader and data card reader are considered synonymous.)

Claim 20. Malec discloses an electronic shopping cart display system according to claim 1, further comprising a motion sensor for limiting power or turning off power to a display unit when a particular shopping cart has not been in motion for a specified time. (See Malec figure 10 item 1323 as well as column 24 lines 20-29)

Claim 22. Malec discloses an electronic shopping cart display system according to claim 1, wherein the display unit further comprises a scanner for reading product UPC labels. (See Malec column 22 lines 41-55) Claim 23 Malec discloses an electronic shopping cart display system according to claim 1, wherein the display unit further comprises a battery status indicator. (See Malec Column 23 line 68 through column 24 lines 10)

Claim 23: Ruppert discloses the display unit further comprises a battery status indicator (Ruppert: figure 26D).

Claim 24: Malec discloses wherein the information comprises electronic coupons (Malec: figures 9A-9B).

2. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Malec et al. (5295064) in view of Vogelmann et al. (5264822), (hereinafter referred to as "Vogelmann") in further view of Ruppert et al. (5640002), (hereinafter referred to as "Ruppert") in further view of MacIntyter.



Claim 17: An electronic shopping cart display system according to claim 1, further comprising an alarm when a shopping cart leaves a prescribed area.

(While Malec in view of Vogelmann make no mention of an alarm, MacIntyre does (see abstract of MacIntyre). At the time the invention was made it was well known in the art that shopping cart theft was a serious and costly problem (See MacIntyre column 1 lines 8-25). Therefore, it would have been obvious to one of ordinary skill in the art to include an alarm system that would deter theft of said shopping carts motivated by the above-mentioned teaching.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CZEKAJ whose telephone number is (571)272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dave Czekaj/  
Primary Examiner, Art Unit 2621